

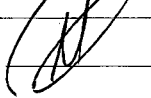
Work Order ID 141640

141640

Page 1

Friday, February 05, 2016 2:37:24 PM

Item ID: D3825-043 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Rib Assembly (Basket End, Lid)
 Start Date: 2/3/2016 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 2/3/2016 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan:  Date: 16-2-05 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3825	C								

100

0.00

100

Large Fab

Large Fab

Memo

0.01

Large Fab

1- cut D3825-3 rib as per dwg D3825

2- drill hole (3/16") in D3825-3 using DT9822 jig and open to finish size as per dwg D3825

3- c'sink hole as per dwg

4- remove identification markings

5- deburr

6- weld D2327-1 spacer & D4021-9 bushing as per dwg D3825

A/R S.S. Rod Batch: 4131917

7- grind bushing weld flush where indicated on dwg D3825

8- deburr if necessary

DAS
43
9-88

FEB 08 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :	Step #:	QTY Effective :			MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : ☐				

Work Order ID 141640

141640

Page 2

Friday, February 05, 2016 2:37:24 PM

Item ID: D3825-043 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Rib Assembly (Basket End, Lid)
 Start Date: 2/3/2016 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 2/3/2016 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds Memo	0.00 0.00				2	FEB 10 2016		DAS 24 9-89
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				2	FEB 10 2016		DAS 24 9-89
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: <i>www</i> <i>cy</i> Memo LOCATION WA004	0.00 0.00				2x			DAS 43 9-89 FEB 08 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 141640***141640***

Page 3

Friday, February 05, 2016 2:37:24 PM

Item ID: D3825-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib Assembly (Basket End, Lid)
Start Date: 2/3/2016 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 2/3/2016 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21 - Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									

FEB 10 2016
MCJ

FEB 10 2016
MCJ

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

Friday, February 05, 2016 2:37:24 PM

Page 1

Work Order ID: 141640

141640

Parent Item: D3825-043

D3825-043

Parent Item Name: Rib Assembly (Basket End, Lid)

Start Date: 2/3/2016

Required Date: 2/3/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 12.07.24 AS PER REV.B DD VERF:EC IPP
REV:B 12.08.08 AS PER DWG REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2327-1 Manufactured No

100

Each

14.0000

1

2

DAS
43
9-89

FEB 08 2016

✓ ***D2327-1***

Spacer Bushing

**B131796 → 2x

Location

Loc Qty

Loc Code

WA004

14

131796

4

132529

10

D4021-9

Manufactured No

100

Each

31.0000

2

4

DAS
43
9-89

FEB 08 2016

✓ ***D4021-9***

Bushing

**B141117 → 9x

Location

Loc Qty

Loc Code

WA004

31

120334

2

122601

4

141117

25

M304TS0.750W.065

Purchased No

100

f

1,787.940

2.125

4.473684

DAS
43
9-89

✓ ***M304TS0 750W 065***

304 SQ Tube .75x.75x.065W

**4132924 → 4.5 feet FEB 08 2016

Location

Loc Qty

Loc Code

WA004

1787.94

m132270

17.94

m132924

570

m133412

600

m133757

600

DQA: _____ Date: _____



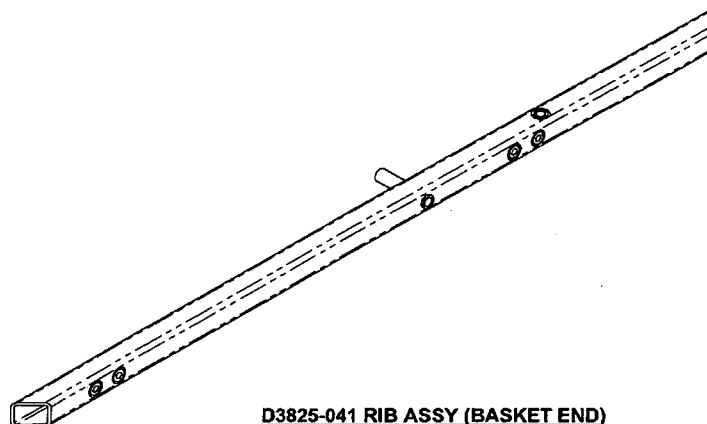
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

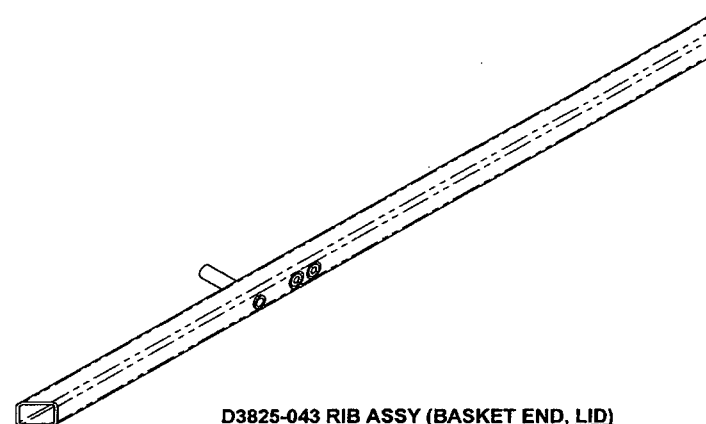
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D3825-041	RIB ASSEMBLY (BASKET END)
		X	D3825-043	RIB ASSEMBLY (BASKET END, LID)
1		1	D2327-1	SPACER BUSHING
2	1		D2327-3	SPACER BUSHING
3	1		D3759-1	BUSHING
4	1		D3825-1	RIB
5		1	D3825-3	RIB
6	4	2	D4021-9	BUSHING



D3825-041 RIB ASSY (BASKET END)



D3825-043 RIB ASSY (BASKET END, LID)

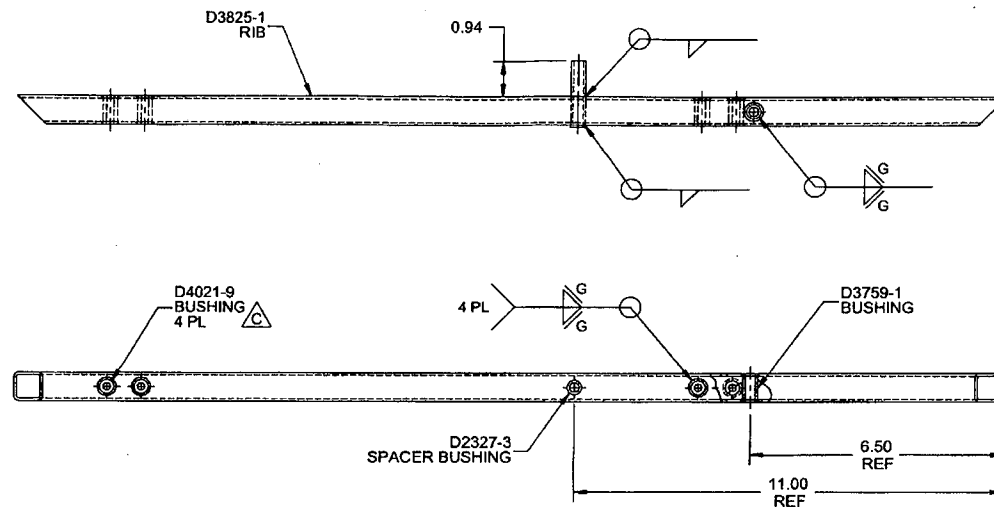
RELEASED
2012-08-03
WJ

Handwritten: 141640
16-2-S

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D3825-041 = 1.27 lbs; D3825-043 = 1.23 lbs
- 8) WELDING: PER DART QSI 004

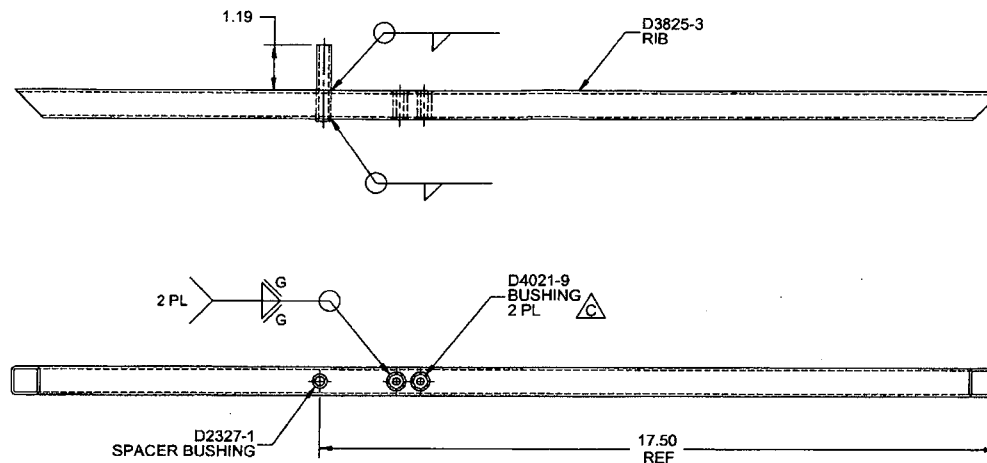
C	QTY(4) D4021-9 ON -041 AND QTY(2) D4021-9 ON -043 WERE D3759-1. CORRECTED DIM (2N B3-4): WAS 14.875. REASON FOR CHG: AN3 SIZE BOLTS REQ'D IN THOSE LOCATIONS.	MB	12.07.18
B	QTY(5) FOR D3759-1 WAS QTY(1); AFFECTS D3825-041-1 (2N'S D3-1, C4-2, C3-2, D4-4, C6-4, C4-4, C3-4). ADDED D3825-043/3. REASON: PART 10-50.	MB	12.05.11
A	NEW ISSUE	MB	08.09.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DL		
DRAWN	DL		
CHECKED	AP		
MFG. APPR.	DL		
APPROVED	WJ		
DE APPR.	WJ		
DATE	12.07.18		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3825 REV. C SHEET 1 OF 4 TITLE RIB ASSY (BASKET END) SCALE NTS COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PROVIDED AS IS WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMISSIONS FROM DART AEROSPACE LTD.			



D3825-041 RIB ASSY (BASKET END)

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2012-08-03
WJP

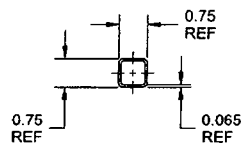
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. C
MFG. APPR.	AS	D3825	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.	WJP	RIB ASSY (BASKET END)	NTS
DATE	12.07.18	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D3825-043 RIB ASSY (BASKET END, LID)

RELEASED
2012-08-03
AW

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3825	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		RIB ASSY (BASKET END)	NTS
DATE	12.07.18	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



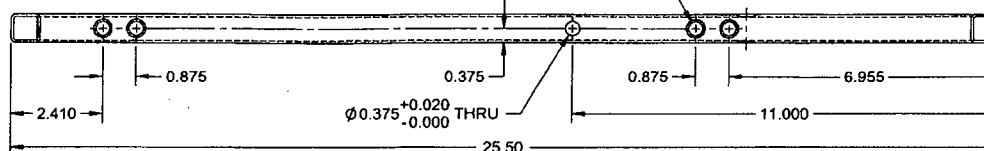
0.75 X 45°
CHAMFER
TYP

$\varnothing 0.375^{+0.020}_{-0.000}$ THRU
 $\varnothing 0.49 \times 100^\circ$ CSK
ON BOTH SIDES

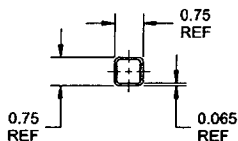
6.500

0.375

$\varnothing 0.375^{+0.020}_{-0.000}$ THRU
 $\varnothing 0.49 \times 100^\circ$ CSK
4 PL, ON BOTH SIDES



D3825-1 RIB

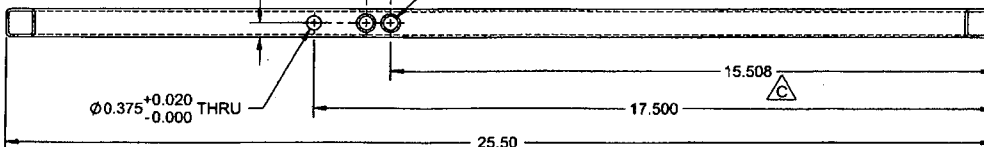


0.75 X 45°
CHAMFER
TYP

$\varnothing 0.375^{+0.020}_{-0.000}$ THRU
 $\varnothing 0.49 \times 100^\circ$ CSK
2 PL, ON BOTH SIDES

0.375

0.625



D3825-3 RIB

RELEASED
2012-08-03

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.065 WALL
REF. DART SPEC. M304TS0.750W.065
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.16 LBS

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3825	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		RIB ASSY (BASKET END)	NTS
DATE	12.07.18	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	